

ABSTRACT OF THE DISCLOSURE

A semiconductor device and a manufacturing method thereof which is suited for forming both a transistor for a memory cell and a transistor for a high voltage circuit part on one semiconductor substrate, and moreover, has little deterioration of an electrical characteristic in the structure that a sidewall insulating film in a shared contact plug part is removed is provided. An active layer (16) is formed by performing an additional impurity injection on a part where a sidewall insulating film is removed in a forming portion of a shared contact plug (18a). An insulating film is laminated in a high voltage circuit part (AR1) and a sidewall insulating film (10d) of wide width is formed. According to this, a forming width of a sidewall insulating film (10a) can be made small in a MOS transistor for a memory cell part (AR2), and a forming width of a sidewall insulating film (10d) can be made large in a MOS transistor for a high voltage circuit part. Thereupon, in the high voltage circuit part (AR1), a source/drain active layer can be formed in the position more distant from a gate electrode.